

WHAT IS CLAIMED IS:

- 1 1. A method of executing tasks in a multi-processor system, comprising:
2 executing a device driver to select a processor to execute an interrupt handler task; and
3 executing an operating system scheduler to assign an interrupt handler task to said
4 processor selected by said device driver.

- 1 2. The method of claim 1 further comprising operating the processor selected by
2 said device driver and assigned by said operating system scheduler to execute an interrupt
3 handler task in response to an interrupt.

- 1 3. The method of claim 1 wherein said device driver executing includes a first
2 monitoring of usage of a plurality of processors in said system and selecting, as a function of
3 said first monitoring, a processor as the currently selected processor to execute an interrupt
4 handler task.

- 1 4. The method of claim 3 wherein said device driver executing includes a second
2 monitoring of usage of a plurality of processors in said system and selecting, as a function of
3 said second monitoring, either the currently selected processor or a different processor to
4 execute an interrupt handler task.

- 1 5. The method of claim 4 wherein said device driver executing includes identifying
2 the processor with the lowest usage, comparing the usage of the lowest usage processor to the
3 usage of the currently selected processor and selecting the lowest usage processor to execute
4 an interrupt handler task if the usage of the currently selected processor exceeds the usage of
5 the lowest usage processor.

1 6. The method of claim 4 wherein said device driver executing includes identifying
2 the processor with the lowest usage, comparing the usage of the lowest usage processor to the
3 usage of the currently selected processor and selecting the lowest usage processor to execute
4 an interrupt handler task if the usage of the currently selected processor exceeds the usage of
5 the lowest usage processor by a predetermined margin of usage.

1 7. The method of claim 4 wherein said device driver executing includes selecting
2 the currently selected processor to execute an interrupt handler task if the usage of the currently
3 selected processor is the lowest.

1 8. The method of claim 5 wherein said device driver executing includes selecting
2 the currently selected processor to execute an interrupt handler task if the usage of the currently
3 selected processor exceeds the usage of the lowest usage processor by less than a
4 predetermined margin of usage.

1 9. A system in communication with data storage, comprising:
2 a plurality of processors;
3 a storage controller adapted to manage Input/Output (I/O) access to the data storage;
4 a device driver capable of execution by at least one processor to select one processor
5 to execute an interrupt handler task; and
6 an operating system scheduler capable of execution by at least one processor to assign
7 an interrupt handler task to said processor selected by said device driver.

1 10. The system of claim 9, further comprising:
2 an interrupt handler task capable of execution by the selected processor in response to
3 an interrupt.

1 11. The system of claim 9 wherein said device driver is capable of execution by at
2 least one processor to monitor usage of a plurality of processors in said system and to select, as
3 a function of said monitoring, a processor as the currently selected processor to execute an
4 interrupt handler task.

1 12. The system of claim 11 wherein said device driver is capable of execution by
2 at least one processor to subsequently monitor usage of a plurality of processors in said system
3 and to select, as a function of said subsequent monitoring, either the currently selected
4 processor or a different processor to execute an interrupt handler task.

1 13. The system of claim 12 wherein said device driver is capable of execution by
2 at least one processor to identify the processor with the lowest usage, to compare the usage of
3 the lowest usage processor to the usage of the currently selected processor and to select the
4 lowest usage processor to execute an interrupt handler task if the usage of the currently
5 selected processor exceeds the usage of the lowest usage processor.

1 14. The system of claim 12 wherein said device driver is capable of execution by
2 at least one processor to identify the processor with the lowest usage, to compare the usage of
3 the lowest usage processor to the usage of the currently selected processor and to select the
4 lowest usage processor to execute an interrupt handler task if the usage of the currently
5 selected processor exceeds the usage of the lowest usage processor by a predetermined margin
6 of usage.

1 15. The system of claim 12 wherein said device driver is capable of execution by
2 at least one processor to select the currently selected processor to execute an interrupt handler
3 task if the usage of the currently selected processor is the lowest.

1 16. The system of claim 13 wherein said device driver is capable of execution by
2 at least one processor to select the currently selected processor to execute an interrupt handler
3 task if the usage of the currently selected processor exceeds the usage of the lowest usage
4 processor by less than a predetermined margin of usage.

17. An article of manufacture including a device driver, wherein the device driver
executes in an operating system having an operating system scheduler and interrupt task
handler, capable of executing tasks in a multi-processor system, wherein the device driver
causes operations to be performed, the operations comprising:

 selecting a processor to execute an interrupt handler task, wherein the operating system
schedule assigns the interrupt handler task to said processor selected by said device driver.

1 18. The article of manufacture of claim 17 wherein said device driver operations
2 include a first monitoring of usage of a plurality of processors in said system and selecting, as a
3 function of said first monitoring, a processor as the currently selected processor to execute an
4 interrupt handler task.

1 19. The article of manufacture of claim 18 wherein said device driver operations
2 include a second monitoring of usage of a plurality of processors in said system and selecting, as
3 a function of said second monitoring, either the currently selected processor or a different
4 processor to execute an interrupt handler task.

1 20. The article of manufacture of claim 19 wherein said device driver operations
2 include identifying the processor with the lowest usage, comparing the usage of the lowest
3 usage processor to the usage of the currently selected processor and selecting the lowest usage

4 processor to execute an interrupt handler task if the usage of the currently selected processor
5 exceeds the usage of the lowest usage processor.

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1 21. The article of manufacture of claim 19 wherein said device driver operations
2 include identifying the processor with the lowest usage, comparing the usage of the lowest
3 usage processor to the usage of the currently selected processor and selecting the lowest usage
4 processor to execute an interrupt handler task if the usage of the currently selected processor
5 exceeds the usage of the lowest usage processor by a predetermined margin of usage.

1 22. The article of manufacture of claim 19 wherein said device driver operations
2 include selecting the currently selected processor to execute an interrupt handler task if the
3 usage of the currently selected processor is the lowest.

1 23. The article of manufacture of claim 20 wherein said device driver operations
2 include selecting the currently selected processor to execute an interrupt handler task if the
3 usage of the currently selected processor exceeds the usage of the lowest usage processor by
4 less than a predetermined margin of usage.